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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,539	03/30/2001	Priya Govindarajan	042390.P10459	7662

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EXAMINER

,CASIANO, ANGEL L

ART UNIT PAPER NUMBER

2182

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/822,539		GOVINDARAJAN ET AL.	
	Examiner		Art Unit	
	Angel L Casiano		2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Response to Amendment

The present Office action is in response to amendment dated 22 November 2004.

Claims 1-22 are pending in the application.

Drawings

1. Previous Objection to the Drawings has been overcome with the corrections included in the present amendment.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-8, 10-12, 14-18, and 21-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al. [US 5,835,720] in view of Reichmeyer et al. [US 6,286,038 B1].

Regarding claim 1, Nelson et al. teaches a method including the steps of identifying a second network device at a first network device (see Abstract); sending a message from the first network device to the second network device, the message establishing the identity of any network device between the first network device and the second network device (see col. 1, lines 58-67); compiling the established identities to determine the topology of the network (see col. 2,

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lines 24-32). However, Nelson et al. fails to teach the step of registering a first network device and a second network device to a policy server and receiving discovery policies from the server at the devices. Reichmeyer explicitly teaches a policy server (Figure 3, “24”, “26”) in communication with first and second network devices (see Figure 3, “62”, “64”). The reference establishes the identities by collecting information on the network devices (see col. 5, lines 2-3). In accordance to this protocol (policy), the prior art method taught by Reichmeyer gathers information and determines the topology of the network. At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to obtain a method which allows simplified remote configuration of a network, as taught by Reichmeyer (see col. 1, lines 26-47).

As for claim 2, the reference teaches identifying a network device by receiving an address for another device (see col. 2, lines 10-16).

As per claim 3, Nelson et al. teaches sending a packet from a network device, having an interface to an address of the second network device and selecting an interface that corresponds to any reply received from the second network device (see Abstract; col. 3, lines 31-39, 60-61; col. 6, lines 2-5). Although the combination of prior art does not literally cite a “network device” having “a plurality of network interfaces”, it does suggest a variety of network devices (see Nelson, col. 2, lines 66-67). Accordingly, it would have been obvious to one of ordinary skill in the art that the devices suggested by the combination of prior art would have included a plurality of interfaces (e.g. “hubs”).

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As for claim 4, Nelson explicitly teaches sending a PING packet from a device (see Abstract, claims).

As per claim 6, Nelson et al. explicitly teaches executing a Traceroute utility to determine the route of a packet (see col. 9, line 58).

As for claim 7, Nelson et al. teaches a method including the steps of identifying a network device at a given network device (see Abstract); as well as sending a message from a network device to another network device, the message establishing the identity of any network device between the devices (see col. 1, lines 58-67); compiling the established identities to determine the topology of the network (see col. 2, lines 24-32).

As per claim 8, Nelson et al. teaches sending a packet from a network device to another network device (see Abstract; col. 3, lines 31-39, 60-61; col. 6, lines 2-5). Although the prior art combination does not literally cite a “third network device” it does suggest a variety of network devices (see Nelson, col. 2, lines 66-67) as part of the cited method. Accordingly, it would have been obvious to one of ordinary skill in the art that the devices suggested by Nelson et al. would have included a plurality of ports (e.g. “hubs”). In addition, the reference compiles the identified addresses (see col. 3, lines 39-44).

Regarding claims 10-12 and 14-15, these correspond to the *machine-readable medium* having stored thereon data representing sequences of instructions corresponding to the method

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previously rejected in the present Office action. These claims are rejected under the same rationale presented in claim 1.

Regarding claim 16, Nelson et al. teaches a method including the steps of identifying a second network device at a first network device (see Abstract); sending a Traceroute message from the first network device to the second network device, the message establishing the identity of any network device between the first network device and the second network device (see col. 1, lines 58-67; col. 9, line 58); compiling the established identities to determine the topology of the network (see col. 2, lines 24-32). Nonetheless, Nelson et al. fails to teach the step of registering a first network device and a second network device to a policy server and receiving discovery policies from the server at the devices. Reichmeyer explicitly teaches a policy server (Figure 3, "24", "26") in communication with first and second network devices (see Figure 3, "62", "64"). The reference establishes the identities by collecting information on the network devices (see col. 5, lines 2-3). In accordance to this topology discovery protocol (policy), the prior art method taught by Reichmeyer gathers information and determines the topology of the network. At the time of the invention, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to obtain a method which allows simplified remote configuration of a network, as taught by Reichmeyer (see col. 1, lines 26-47).

As for claim 17, the reference teaches identification of a network device by receiving an address for another device (see col. 2, lines 10-16).

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As per claim 18, Nelson et al. teaches sending a packet from a network device, having an interface to an address of the second network device and selecting an interface that corresponds to any reply received from the second network device (see Abstract; col. 3, lines 31-39, 60-61; col. 6, lines 2-5). Although the prior art combination does not literally cite a “network device” having “a plurality of network interfaces”, it does suggest a variety of network devices (see Nelson, col. 2, lines 66-67). Accordingly, it would have been obvious to one of ordinary skill in the art that the devices suggested by Nelson et al. would have included a plurality of interfaces (e.g. “hubs”). The reference explicitly teaches sending a PING packet from a device (see Abstract, claims).

As for claim 21, the policy server in Reichmeyer et al. (see “system 24” and “server 26”) receives the identities (see “information”, “description”) in accordance to the received policy (see col. 4, lines 56-61). One of ordinary skill in the art would have been motivated to combine the cited references for the reasons stated in claim 1.

As for claim 22, Reichmeyer et al. teaches compiling (see “gathers”) the identities at the policy server to determine the topology of the network (see col. 5, lines 1-9).

4. Claims 5, 13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al. [US 5,835,720] in view of Reichmeyer et al. [US 6,286,038 B1] in further view of Aggarwal et al. [US 5,675,741].

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As per claim 5, the combination of prior art (Nelson et al. in view of Reichmeyer et al.) does not explicitly teach a method, wherein the step of sending the message comprises sending a plurality of messages to the second network device, each message having an *incrementally* greater time to live until a message reaches the second network device. Regarding this limitation, Aggarwal et al. teaches a method in a computer network communication system, where a packet has an incrementing TTL (time-to-live) value (see col. 2, lines 42-47). At the time of the invention, one of ordinary skill in the art would have been motivated to modify the cited combination of disclosures in order to obtain a communication method where a route is successfully traced from any source to any destination regardless of whether one router is known (see Aggarwal).

As for claim 13, this corresponds to the *machine-readable medium* having stored thereon data representing sequences of instructions corresponding to the method previously rejected in the present Office action. Therefore, this claim is rejected under the same rationale.

As per claim 19, the combination of prior art (Nelson et al. in view of Reichmeyer et al.) does not explicitly teach a method, wherein the step of sending the message comprises sending a plurality of messages to the second network device, each message having an *incrementally* greater time to live until a message reaches the second network device. Regarding this limitation, Aggarwal et al. teaches a method in a computer network communication system, where a packet has an incrementing TTL (time-to-live) value (see col. 2, lines 42-47). At the time of the invention, one of ordinary skill in the art would have been motivated to modify the cited combination of disclosures in order to obtain a communication method where a route is

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successfully traced from any source to any destination regardless of whether one router is known (see Aggarwal).

5. Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nelson et al. [US 5,835,720] in view of Reichmeyer et al. [US 6,286,038 B1] in further view of Fishler [US 6,507,646 B1].

As for claims 9 and 20, the combination of references (Nelson et al. in view of Reichmeyer et al.) teaches a method where a network device sends a message identifying an address. However, the combination of references does not teach sending a packet to a port that does not exist in order to provoke a device to send an error message. Regarding this limitation, Fishler teaches error reporting protocol as part of a communication method (see col. 7, lines 39-55). Fishler teaches implementing this protocol as part of ICMP (Internet Control Message Protocol). Accordingly, one of ordinary skill in the art would have been motivated to modify the combination of references in order to implement an error-reporting message in a method for remotely configuring a network device.

Response to Arguments

6. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Ramanathan et al. [US 6182136 B1] teaches automated service elements discovery using core service specific discovery templates.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L Casiano whose telephone number is 571-272-4142. The examiner can normally be reached on 9:00-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alc
04 February 2005



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